

**SPECIFICATION FOR REDUCED RECOIL RISK, SINGLE PART MOORING LINE**

1. The 4 strand, Reduced Recoil Risk (RRR), High Molecular Weight Polyethylene (HMPE), Single Part Mooring Lines (SPMLs) to be furnished shall be in accordance with technical requirements of Commercial Item Description CID A-A-50435B, except as follows:
  - HMPE fiber Spectra 1000 or Dyneema SK 75 shall be substituted for the strength member material, in lieu of aramid. Linear density requirements are eliminated, accordingly.
  - Lines shall be produced in the breaking strength (BS) and overall finished length as listed in paragraph 6 below.
  - Line required for break test samples shall be taken from same production run as finished rope assemblies.
  - D/d ratio shall not be below 3:1 based on critical dimension of typical chock; hence the maximum rope diameter for each size line is listed in para 5. In light of the allowable D/d ratio as low as 3:1, helix angle and related stretch characteristics may be increased from values listed in CID, to improve bending efficiency at the discretion of the manufacturer.
  - If construction is changed from that specified in the CID, the contractor must perform a series of three "failure mechanism" (snap-back) tests on the initial lot, per the procedure listed in para 4.5 under Quality Assurance in CID A-A-50435B, and these samples must also meet the minimum BS requirement (test results to be provided together with the mooring line).
  - If construction is NOT changed, snap-back test may be limited to one per lot based on the snap-back test procedure listed in CID A-A-50435B, and these samples must also meet the minimum BS requirement.
  - Test Length for "failure mechanism" testing shall be IAW latest revision of CI 1502, "Reduced Recoil Rope Test Method".
  - No BS testing of other samples (ie, 35 foot BS test) is required.
2. Lines shall be produced with manufacturers unique tracer for clear visual identification of this manufacturers line from others. Tracer pattern must be registered with Cordage Institute of America.
3. Lines shall be finished as follows:
  - a. Lines shall be finished with six foot eye splices and five foot long Cordura nylon chaffing sleeves, or equal, installed in the eyes.
  - b. Two five-foot long, sliding, Cordura chaffing sleeves, or equal, shall be installed on the working part of line, and left near the eye at each end.
  - c. Polyester tattletales intended for low stretch lines shall be installed in accordance with NSWCCD procedure, as specified in Naval Ships Technical Manual (NSTM) Chapter 582.
  - d. A durable identification tag shall be placed in crotch of the eye splice of each line to clearly designate: Manufacturer, Year assembled, minimum breaking strength of line; line material and construction; and applicable specification. The ID tag may be leather, nylon, other durable cloth, or equal. The tag could be installed around a single strand or around the circumference of the line at time of splicing. Tags should be positioned near the apex of the eye to minimize wear on the tag.

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4. Lines shall be furnished in the following minimum breaking strengths and lengths:

<b><u>Ref Designation</u></b>	<b><u>Description</u></b>
HMPE 140BS-200	140 KIP BS RRR HMPE SPML, 200 feet long
HMPE 140BS-400	140 KIP BS RRR HMPE SPML, 400 feet long
HMPE 180BS-200	180 KIP BS RRR HMPE SPML, 200 feet long
HMPE 180BS-400	180 KIP BS RRR HMPE SPML, 400 feet long
HMPE 230BS-200	230 KIP BS RRR HMPE SPML, 200 feet long
HMPE 230BS-400	230 KIP BS RRR HMPE SPML, 400 feet long
HMPE 300BS-200	300 KIP BS RRR HMPE SPML, 200 feet long
HMPE 300BS-400	300 KIP BS RRR HMPE SPML, 400 feet long
HMPE 360BS-200	360 KIP BS RRR HMPE SPML, 200 feet long
HMPE 360BS-400	360 KIP BS RRR HMPE SPML, 400 feet long
HMPE 405BS-200	405 KIP BS RRR HMPE SPML, 200 feet long
HMPE 405BS-400	405 KIP BS RRR HMPE SPML, 400 feet long
HMPE 510BS-200	510 KIP BS RRR HMPE SPML, 200 feet long
HMPE 510BS-400	510 KIP BS RRR HMPE SPML, 400 feet long
HMPE 660BS-250	660 KIP BS RRR HMPE SPML, 250 feet long
HMPE 660BS-400	660 KIP BS RRR HMPE SPML, 400 feet long

5. Maximum rope diameter for each line size, based on typical chock diameter:

<b>Break Strength (kips)</b>	<b>Maximum Line Diameter</b>	<b>Typical Minimum Chock Diameter (in)</b>
140	1 1/2*	4
180	1 2/3	5
230	2	6
300	2 1/3	7
360	2 3/8*	7
405	2 2/3	8
510	2 3/4*	8
660	3 1/3	10

\* values fall slightly under 3:1 D/d ratio goal, to accommodate expected minimum required to meet minimum BS.

6. All other provisions of CID A-A-50435B apply.

**Shipping Instructions:**

Items 0001 and 0002:

Fleet Ind Support Center  
NAVSTATION Mayport  
Bldg 191  
Mayport, FL 32228  
Attn: USS UNDERWOOD (FFG 36)

Items 0003 and 0004:

FLEET AND INDUSTRIAL SUPPLY CENTER  
BLDG 1900 RECEIVING DIV  
1942 GAFFNEY STREET  
PEARL HARBOR, HI 96860  
Attn: USS HOPPER (DDG 70)

Items 0005 and 0006:

DDDC San Diego CA, B-3304 Door 7  
2680 Woden St  
San Diego, CA 92136  
Attn: USS DECATUR (DDG 73)

Items 0007 and 0008:

DDDC San Diego CA  
2680 Woden St  
San Diego, CA 92136  
Attn: USS HOWARD (DDG 83)

Items 0009:

DDDC San Diego CA  
2680 Woden St  
San Diego, CA 92136  
Attn: USS MCCAMPBELL (DDG 85)

Items 0010 through 0026 shall be delivered to the Naval Station, Mayport, FL. Specific shipping instructions shall be furnished at a later date prior to delivery.